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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
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MATTIS, JASON E

ART UNIT	PAPER NUMBER
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2416

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/070,212	<b>Applicant(s)</b> BERGENWALL ET AL.	
	<b>Examiner</b> JASON E. MATTIS	<b>Art Unit</b> 2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 4/24/09.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10, 16, 18-20 and 22-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 16, 18-20 and 22-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This Office Action is in response to the Request for Continued Examination filed 4/24/09. Claims 11-15, 17, and 21 have been canceled. New claims 24-27 have been added. Claims 1-10, 16, 18-20, and 22-27 are currently pending in the application.

#### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 22 and 27 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Specifically, claims 22 and 27 are directed towards a "computer program product". Computer program products are not recognized to fall under one of the statutory categories of invention. It is recommended that these claims be amended such that they are directed towards a device rather than a computer program product. For example, it is recommended that claims 22 and 27 be changed to "A computer-readable storage medium storing a computer program product being configured to control a processor to perform a process", such that the physical computer-readable storage medium is being claimed rather than the computer program product.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4, 6-9, 16, 18, 19, 22-25 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dispensa et al. (U.S. Pat. 6636501 B1) in view of Chen (U.S. Pat. 6392997 B1).

**With respect to claims 1 and 16**, Dispensa et al. discloses an apparatus in a system **(See column 5 lines 50-61 and Figure 2 of Dispensa et al. for reference to a module 23, which is an apparatus in a system)**. Dispensa et al. also discloses a memory configured to store a pre-defined list of rules for detecting packets and a detector configured to detect special data packets in a received plurality of data packets based on the pre-defined list of rules **(See column 8 lines 33-43 and Figure 6 of Dispensa et al. for reference to module 23 having a memory to store rules and a unit to use the stored rules to detect packets in step 61)**. Dispensa et al. further discloses a router configured to request instructions for the special data packets detected and route the special data packets in accordance with instructions received on request **(See column 8 line 33 to column 9 line 2 and Figure 6 of Dispensa et al. for reference to module 23 requesting instructions in steps 62 and 65 and for reference to module 23 routing packets in accordance with received instructions**

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**in steps 64, 69, and 71).** Dispensa et al. also discloses an internal entity configured to store instructions for the special data packets wherein the router is configured to notify the internal entity of detected special packets and request instructions **(See column 6 lines 42-56, column 8 lines 33-43, and Figure 6 of Dispensa et al. for reference to the module 23 having a cache memory, which is an internal entity, storing instructions for routing data packets and receiving request for instructions in step 62).** Dispensa et al. further discloses a node configured to determine and update the instructions stored in the internal entity during active operations **(See column 5 line 62 to column 6 line 7, column 8 lines 57-63, and Figures 2 and 6 of Dispensa et al. for reference to main router module 22, which is a node, determining routing instructions and updating the cache of module 23 in step 68 during active operations).** Dispensa et al. does not specifically disclose that the node is a gateway node connectable to at least one further router located outside the apparatus.

**With respect to claims 6 and 22,** Dispensa et al. discloses a method performed by a computer program implemented on a computer readable medium **(See the abstract and column 7 lines 5-15 of Dispensa et al. for reference to a routing method performed by software implemented on a microprocessor).** Dispensa et al. also discloses storing a pre-defined list of rules for detecting special data packets and detecting special data packets in a received plurality of data packets based on the rules **(See column 8 lines 33-43 and Figure 6 of Dispensa et al. for reference to module 23 storing rules and using the stored rules to detect packets in step 61).** Dispensa et al. further discloses requesting instructions for the detected special data

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packets and routing the packets in a data network in accordance with instructions received **(See column 8 line 33 to column 9 line 2 and Figure 6 of Dispensa et al. for reference to module 23 requesting instructions in steps 62 and 65 and for reference to module 23 routing packets in accordance with received instructions in steps 64, 69, and 71)**. Dispensa et al. also discloses notifying an internal entity of the detected special data packets and requesting instructions for the packets from the internal entity **(See column 6 lines 42-56, column 8 lines 33-43, and Figure 6 of Dispensa et al. for reference to the module 23 having a cache memory, which is an internal entity, storing instructions for routing data packets and receiving request for instructions in step 62)**. Dispensa et al. further discloses a node determining and updating the instructions stored in the internal entity during active operations **(See column 5 line 62 to column 6 line 7, column 8 lines 57-63, and Figures 2 and 6 of Dispensa et al. for reference to main router module 22, which is a node, determining routing instructions and updating the cache of module 23 in step 68 during active operations)**. Dispensa et al. does not specifically disclose the method operating in an apparatus with the node being a gateway node connectable to at least one further router located outside the apparatus.

**With respect to claims 18 and 23**, Dispensa et al. discloses a network element **(See column 5 lines 50-61 and Figure 2 of Dispensa et al. for reference to a module 23, which is a network element)**. Dispensa et al. also discloses a router configured to request instructions for special data packets detected by a detector and route the special data packets in accordance with instructions received on request **(See**

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**column 8 line 33 to column 9 line 2 and Figure 6 of Dispensa et al. for reference to module 23 requesting instructions in steps 62 and 65 and for reference to module 23 routing packets in accordance with received instructions in steps 64, 69, and 71).** Dispensa et al. also discloses the router is configured to notify an internal entity of detected special packets and request instructions for the packets from the internal entity **(See column 6 lines 42-56, column 8 lines 33-43, and Figure 6 of Dispensa et al. for reference to the module 23 having a cache memory, which is an internal entity, storing instructions for routing data packets and receiving request for instructions in step 62).** Dispensa et al. further discloses the router notifying a node of detected packets and requesting instructions from the external entity instead of the internal entity **(See column 5 line 62 to column 6 line 7, column 8 lines 51-56, and Figures 2 and 6 of Dispensa et al. for reference to main router module 22, which is an entity external to module 23, receiving a request for instructions from module 23 in step 65).** Dispensa et al. does not specifically disclose that the node is a gateway node connectable to at least one further router located outside the apparatus.

**With respect to claims 24 and 27,** Dispensa et al. discloses a method performed by a computer program implemented on a computer readable medium **(See the abstract and column 7 lines 5-15 of Dispensa et al. for reference to a routing method performed by software implemented on a microprocessor).** Dispensa et al. also discloses requesting instructions for special data packet detected by a detector and routing the special data packets in accordance with instructions received on request **(See column 8 line 33 to column 9 line 2 and Figure 6 of Dispensa et al. for**

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**reference to module 23 requesting instructions for special packets in steps 62 and 65 and for reference to module 23 routing special packets in accordance with received instructions in steps 64, 69, and 71).** Dispensa et al. further discloses notifying an internal entity of the detected special data packets and requesting instructions for the special data packets from the internal entity **(See column 6 lines 42-56, column 8 lines 33-43, and Figure 6 of Dispensa et al. for reference to the module 23 having a cache memory, which is an internal entity, storing instructions for routing data packets and for reference to cache being notified of a received special packet by receiving a request for instructions in step 62).**

Dispensa also discloses notifying a node of the detected special data packets instead of the internal entity and requesting instructions for the special data packets from the node instead of the internal entity **(See column 5 line 62 to column 6 line 7, column 8 lines 51-56, and Figures 2 and 6 of Dispensa et al. for reference to main router module 22, which is a node external to module 23, receiving a request for instructions from module 23 instead of the cache in step 65).** Dispensa et al. does not specifically disclose that the node is a gateway node connectable to at least one further router located outside an apparatus comprising the gateway node.

**With respect to claims 1, 6, 16, 18, 22, and 23,** Chen, in the field of communications, discloses a gateway node updating routing instructions of multiple routers connected to the gateway node **(See column 4 lines 14-31, column 6 line 35 to column 7 line 14, and Figure 1 of Chen for reference to an interdomain router 200, which is a gateway node connecting multiple routing domains, determining**



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**generating and transmitting a routing update message that is sent to multiple neighboring peer routers that use the message to update routing instructions).**

Using a gateway node connectable to multiple routers has the advantage of allowing a single device to distribute instructions to more than one router of a network to better coordinate the routing instructions for packets at multiple routers within the network.

It would have been obvious for one of ordinary skill in the art at the time of the invention, when presented with the work of Chen, to combine using a gateway node connectable to multiple routers, as suggested by Chen, with the system and method of Dispensa et al., with the motivation being to allow a single device to distribute instructions to more than one router of a network to better coordinate the routing instructions for packets at multiple routers within the network.

**With respect to claims 2 and 7**, Dispensa et al. discloses the routing unit notifying the external entity of detected packets and requesting instructions from the external entity instead of the internal entity **(See column 5 line 62 to column 6 line 7, column 8 lines 51-56, and Figures 2 and 6 of Dispensa et al. for reference to main router module 22, which is an entity external to module 23, receiving a request for instructions from module 23 in step 65).**

**With respect to claims 3 and 8**, Dispensa et al. discloses the external entity determining and updating the rules stored in the internal entity during active operations **(See column 5 line 62 to column 6 line 7, column 8 lines 57-63, and Figures 2 and 6 of Dispensa et al. for reference to main router module 22, which is an entity**

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**external to module 23, determining routing rules and updating the rules of module 23 in step 68 during active operations).**

**With respect to claims 4, 9, 19, and 25**, Dispensa et al. discloses modifying the special data packets in accordance with received instructions **(See column 8 lines 44-50 and Figure 6 of Dispensa et al. for reference to adding an adapter number and a port number to a data packet according to received instructions).**

5. Claims 5, 10, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dispensa et al. in view of Chen and in further view of Mori (U.S. Pat. 5751799).

**With respect to claims 5, 10, 20, and 26**, the combination of Dispensa et al. and Chen does not disclose an external charging entity.

**With respect to claims 5, 10, 20, and 26**, Mori, in the field of communications, discloses using an external charging entity **(See column 23 lines 13-20 and Figure 23 of Mori for reference to a packet routing network including a charging function unit 90B, which is an external charging entity)**. Using an external charging entity has the advantage of allowing customers to be charged for network usage.

It would have been obvious for one of ordinary skill in the art at the time of the invention, when presented with the work of Mori, to combine using an external charging entity, as suggested by Mori, with the system and method of Dispensa et al. and Chen, with the motivation being to allow customers to be charged for network usage.

***Response to Arguments***

6. Applicant's arguments filed 3/24/09 have been fully considered but they are not persuasive.

Regarding Applicant's argument that since the routing updates disclosed by Chen are made and exchanged among interdomain routers, Chen does not disclose the limitation stating "wherein the gateway node is configured to determine and update the instructions stored in the internal entity during active operations, wherein the gateway node is connectable to at least one further router located outside said apparatus", the Examiner respectfully disagrees. As shown in the rejections above, Chen discloses an interdomain router 200 determining generating and transmitting a routing update message that is sent to multiple neighboring peer routers that use the message to update routing instructions (See column 4 lines 14-31, column 6 line 35 to column 7 line 14, and Figure 1 of Chen). The interdomain routers 200 of Chen are gateway nodes since they are edge routers connecting separate routing domains. The fact that the routing updates are performed by and among the interdomain routers does not preclude the interdomain routers of Chen from performing the same functions state in the claim limitations. For examiner, an interdomain router 200 of Chen is a gateway node, since it acts as a gateway between routing domains, and the interdomain router 200 of Chen also determines routing updates and sends the routing updates to multiple peer routers to update an internal routing table of the multiple peer routers. Thus, Chen does disclose a gateway node (an interdomain router 200) configured to determine and

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update the instructions (routing instructions) stored in the internal entity (routing tables of neighbor a peer router) during active operations, wherein the gateway node is connectable to at least one further router located outside said apparatus (the interdomain router 200 connectable to other interdomain routers 200 as well as intradomain routers 120). Therefore Chen does disclose each element of the above quoted claim limitation. Further, regarding Applicant's argument that the instructions of Chen are updated not updated in response to request, while this may be true, this argument is moot since Chen is not used in the rejections above to teach and external entity updating instructions of an internal entity in response to a request. Rather those teachings are found within Dispensa et al. (See column 5 line 62 to column 6 line 7, column 8 lines 51-56, and Figures 2 and 6 of Dispensa et al. for reference to main router module 22, which is an entity external to module 23, receiving a request for instructions from module 23 in step 65 and updating instructions of a cache, which is an internal entity, in response to the request). Chen is merely used to disclose a teaching of a gateway node updating routing instructions, while the manner in which routing instructions are updated is taught by Dispensa et al.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON E. MATTIS whose telephone number is (571)272-3154. The examiner can normally be reached on M-F 8AM-5:30PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571)272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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